

## APPENDICES

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1. U.S. FISH AND WILDLIFE SERVICE

Comment:

Page 1, 3.a. Environmental Impacts. This statement should be qualified. Increased populations will partially offset project incurred losses.

Response:

We have changed the statement to indicate that only certain fish and wildlife populations will be increased in the region and that this increase will offset the losses resulting from the Lower Snake River Project. The Compensation program would not compensate, in kind, for all species affected by the Lower Snake River Project.

Comment:

Page 1, 3.b. Adverse Environmental Impacts. We do not agree that problems in excess of those otherwise incurred would result with the project plan. Hunting and fishing would have exceeded that anticipated with the plan. "Compensation" as used throughout the statement is inappropriate. For example, terrestrial habitat inundated can never be replaced or its loss fully offset.

Response:

It is agreed that terrestrial habitat inundated by the project cannot be replaced; however, it is estimated that hunting and fishing opportunities will provide compensation for some lost wildlife within the project land. It is also established from past experience that a percentage of the public will abuse and violate hunting and/or fishing laws and regulations.

Comment:

Page I-2, sec. d. Operation and maintenance costs for hatcheries will not necessarily be funded through the U.S. Fish and Wildlife Service, but possibly through the National Marine Fisheries Service, or the appropriate State agency.

Response:

The Revised Draft Environmental Impact Statement indicates that funding may actually go through the U.S. Fish and Wildlife Service, the National Marine Fisheries Service, and the appropriate State fish and wildlife agencies.



Comment:

Page I-8, 2nd para., 3rd sen. The fish and wildlife agencies in the Special Lower Snake River Compensation Report recommended the Touchet and Walla Walla rivers as areas for stocking rainbow trout as compensation for lost Snake River resident sports fishing. However, due to irrigation withdrawals and farming practices which cause low summer flows, high turbidity and high water temperatures, these streams do not provide quality fish habitat. The upper reaches of these streams do provide adequate fish habitat but are already stocked by State programs.

Reservoirs proposed by the Bureau of Reclamation could improve water quality in these rivers and enhance the fisheries. However, enhancement benefits would be assigned to that project. Fish used to compensate Snake River losses cannot also be assigned enhancement benefits.

Response:

The exact locations where trout stocking may be done would be fully coordinated with the involved agency at the time the program would be implemented. Efforts would be undertaken to provide an overall gain in the fishery, not a substitution or duplication.

Comment:

Page II-37/38, Threatened Species of Wildlife. The spotted owl is found west of the Cascade Mountains, not in the project area.

Response:

The spotted owl is not found in the project area. Misinterpretation of distribution maps has led to this error, and the spotted owl has been deleted from the list.

Comment:

Page III-1, Wildlife Habitat Lands. It is stated that these lands would be committed to wildlife use and inferred that only wildlife would benefit. All land uses dependent on wise ecosystem management--i.e. agriculture, water supply, etc.--would also benefit.

Response:

Wildlife production and related activities would be the primary function.



Comment:

Page IV-2, sec. c., Compensation or Management Alternatives. Trapping and hauling downstream migrant fish should be considered a temporary and not a final solution to dam related mortalities.

Response:

Trapping and hauling is considered to be a temporary solution. Currently, trapping and hauling appears to be the most promising arrangement for maintaining steelhead and salmon survival to date. Trapping and hauling coupled with spillway deflectors should help to maintain high return-to-spawner ratios from hatchery programs.

Comment:

Page VI-8, sec. c., Genetic Alteration of the Fish. While a few salmonid species will spawn in lakes, all require graveled areas for successful reproduction. Even if strains of reservoir spawning salmonids are developed through selective breeding, gravel beaches will be required for successful spawning.

Response:

Recently, genetic investigators have developed techniques to change the DNA content of a bacterial cell. This results in a new form of plant. However, due to the serious nature and lack of knowledge concerning genetic alterations, this alternative is a futuristic proposal. It would be much too dangerous to genetically alter fish at this stage of investigation. In a couple of decades geneticists may be able to produce a quality salmon species that would be able to reproduce in a slack water system.

## 2. BUREAU OF LAND MANAGEMENT

Comment:

We have reviewed the draft environmental impact statement and special report on the Lower Snake River, Fish and Wildlife Compensation, Washington, Oregon and Idaho and offer the following comments:

Pages 1-2, Section f., Pages 1-3, Section a & b, Pages II-1, Section (1), and Pages II-3, Section (2).

Acquisition of lands and easements - The BLM does not manage a great deal of land adjacent to this part of the Snake River in the project area. However, there are some National Resource Lands along the lower Grande Ronde River in Washington and Oregon. Some of the



land and/or easement acquisitions contemplated in implementing the Corps' Fish and Wildlife Compensation project could be coordinated with BLM to possibly improve public access to some of the N.R.L. tracts along the Grande Ronde River. Such access would provide greater hunting and fishing opportunities for the public and further the goals of this compensation project.

Response:

The Corps is interested in the possible use of or coordination with BLM lands along the Grande Ronde River in the fish and wildlife compensation program and will investigate using easement acquisition to make such areas more accessible to fishermen and/or hunters.

3. BUREAU OF RECLAMATION

Comment:

The draft environmental statement and special report on the Lower Snake River, Fish and Wildlife Compensation, Washington, Oregon, and Idaho (ER75/259) have been reviewed by appropriate personnel in this Region and we have no specific comments to provide. Thank you for the opportunity of reviewing the statement and report.

Response:

Noted.

4. BUREAU OF MINES

Comment:

The increase in fish and wildlife population and facilities to implement this action will not adversely affect mineral development in the Lower Snake River area.

Response:

Noted.



5. BUREAU OF INDIAN AFFAIRS, PORTLAND AREA OFFICE

Comment:

The lower Snake River dams included in the draft occur in ceded areas of three Indian treaties.

1. Camp Stevens Treaty (Nez Perce) 12 Stat. 957
2. Camp Stevens Treaty (Yakima) 12 Stat. 951
3. Camp Stevens Treaty (Umatilla) 12 Stat. 945

Overlapping of usual and accustomed fishing places occurs between Warm Springs, Umatilla, Nez Perce, and Yakima Tribes. These sites have not been adjudicated in the Columbia basin system except for on-reservation sites. There are usual and accustomed fishing places in the area.

Considering the emphasis now being accorded Indian treaty fishing rights and the proximity of the Nez Perce Tribe, it is suggested that the tribe should receive communications related to Snake River and Snake River tributaries planning. They should have the opportunity to provide input and make their views known on alternate possibilities and have a greater opportunity to participate in plan formulation.

Response:

The Corps will try to ascertain any existing Indian rights in the project area and will make an effort to keep the affected tribes advised of any future action.

Comment:

The alternative mentioned in paragraph one, page I-8 (expanding existing hatcheries) may not respond to the needs of the tribes. If downstream hatcheries are used, the returning salmon may not arrive in areas where Indian fishermen can harvest--tribal benefit would depend on hatchery location and related programs.

Response:

This comment will be considered during detailed hatchery siting determinations.

Comment:

The flip lips (page IV-3, paragraph 3) should certainly reduce fish loss if we understand the data correctly, but would it actually eliminate the occurrence of nitrogen supersaturation as stated in the paragraph?



Response:

In high-flow years nitrogen supersaturation will probably occur to some extent so the paragraph referred to has been rewritten. (See page 6-3.)

Comment:

In regards to the transportation of steelhead smolts, why is it suggested that only 50% are to be transported?

Response:

During certain fish transportation studies, 50% of the fish trapped were transported and the other 50% were marked and released as a study control group. Fish transportation on a non-research basis is not limited to 50%.

Comment:

There is concern on the effect of transporting juvenile salmonids on their "Homing" instinct when they return as adults--we do not know that this system will function effectively.

Response:

The National Marine Fisheries Service has conducted an investigation into the homing instinct of smolt that were transported below Bonneville Dam. These investigations indicate that there has been no serious effect on the homing instincts of the fish. Further research will continue.

6. BUREAU OF INDIAN AFFAIRS, NORTHERN IDAHO AGENCY

Comment:

In reviewing the tables on "Hatchery Requirements to Produce Required Number of Adult Chinook and Steelhead," we note that survival from eggs to smolts is fairly good, but survival of smolts to adults is very low. Table 1, "Summary of Facilities and Costs of Wildlife Compensation Facilities, Lower Snake River Project," does not provide for any money for a study to improve this survival rate. Page VI-3 briefly mentions a study being conducted on truck transportation to insure steelhead survival.

Response:

The Corps and the National Marine Fisheries Service, as well as the U.S. Fish and Wildlife Service, are working on the development



of measures (flip lips, traveling screens, etc.) that will increase the survival rate of the fish. These measures are not requested in funding under the Fish and Wildlife Compensation Program. If successful, they may have an effect on the extent to which the Fish and Wildlife Compensation Program is actually developed.

Comment:

Indian treaty rights concerning fishing are briefly discussed under "Management Methods," page VI-6. It would appear that with the Court decisions already rendered, the Tribes should be given a greater opportunity to participate in the formulation of a plan involving compensation for fish and wildlife lost with dam construction on the Lower Snake River and on the Columbia River.

Response:

Please refer to the response to the first comment from the Portland Area Office, Bureau of Indian Affairs (page A-5).

7. U.S. ENVIRONMENTAL PROTECTION AGENCY -- REGION X

Comment:

The draft EIS implies that fish hatcheries alone will compensate fish losses resulting from the construction of lower Snake River locks and dams. It deals heavily therefore, with the impacts of hatchery development on water quality and the environment. The capital cost of the fishery mitigation program is estimated by the Corps to be \$42,250,000 and annual O&M cost \$2,950,000. Annual costs amortized over a 100-year project life are estimated to total \$2,770,265 in 1974 dollars. It is apparent that the Federal government will pay this cost even though navigation and power interests are the major beneficiaries of the river development.

Response:

The costs of the compensation would be apportioned as joint costs to the Lower Snake River Projects; and functions, such as power and navigation, will be supporting the costs. Power costs are returned to the Federal Government (BPA) by changes to the users, while under present conditions, navigation users do not pay for lockage.



Comment:

In addition to the hatchery program, the EIS should address the entire anadromous fish passage and survival program including plans for minimizing dissolved gas supersaturation, providing minimum required stream flows and preventing downstream migrant mortalities at each of the four dams. In other words, all factors and alternatives associated with additional compensatory needs and with the continuation and improvement of mitigating operations throughout the lower Snake River, together with their impacts, should be included.

Response:

The Corps and the fishery agencies have been and are investigating the results of installation of flip lips and traveling screens throughout the four dam complex as well as other dams on the Columbia River. These factors were taken into consideration in the report provided by the Fish and Wildlife agencies. Additional compensation or less compensation will be considered as these devices are further evaluated. The data needed for the alternative analysis is not ready for inclusion in this statement. Several additional years of evaluation are necessary to fully understand the effects.

Comment:

The draft statement discusses hatchery waste in some detail indicating that some type of treatment may be required at each of the four hatcheries. Current effluent limitations for hatchery discharges under the NPDES permit program now address suspended solids as the only parameter for which controls will be required. Among the parameters discussed in the statement however, suspended solids are not specifically mentioned. Suspended solids limitations currently proposed for Best Practicable Treatment Technology, Best Available Treatment Technology, and New Source Performance are 15 mg/l (maximum), 2.2 lbs/100 fish (average) and 2.9 lbs/100 fish (maximum daily). It is not clear in the draft statement whether or not waste treatment facilities are included in the fish hatchery program cost estimates.

Response:

All hatcheries will be designed to meet the appropriate Federal and State pollution control standards in effect at the time of development. The costs for waste treatment are included in the estimate.



8. BUREAU OF OUTDOOR RECREATION

Comment:

We have reviewed the Draft Environmental Impact Statement and Special Report on the Lower Snake River, Fish and Wildlife Compensation Program for Washington, Oregon, and Idaho and conclude that the documents adequately discuss the recreational and environmental aspects and impacts for which this office has jurisdiction and review expertise. We, therefore, have no substantive comments for your consideration in the preparation of subsequent documents relating to this program.

Response:

Noted.

9. UNITED STATES COAST GUARD

Comment:

We have reviewed this project and have no comments at this time; however, we would like the opportunity to review specific site development proposals.

Response:

Noted.

10. SOIL CONSERVATION SERVICE - PORTLAND, OREGON

Comment:

We have reviewed the draft environmental impact statement for the Lower Snake River Fish and Wildlife Compensation Program.

We have no comments to offer.

Response:

Noted.



11. SOIL CONSERVATION SERVICE - SPOKANE, WASHINGTON

Comment:

Your draft environmental impact statement for the Fish and Wildlife Compensation Program has been reviewed by our field personnel and it would appear the soil protection aspects have been adequately addressed. We would, however, be interested in ascertaining if consideration has been given to actually delineating the line between the public and private lands to enable hunters to recognize these boundaries. We believe this would be of great benefit in maintaining better public relations with the landowners.

Response:

The firm establishment of boundary lines between private and public easement lands will be considered in this program.

12. FEDERAL POWER COMMISSION

Comment:

We have reviewed the draft to determine the effect on matters affecting the Commission responsibilities. Such responsibilities relate to the development of hydroelectric power and adequacy of electric services under the Federal Power Act, and the construction and operation of natural gas pipelines under the Natural Gas Act.

Although the action indicated in your proposal would require minimal amounts of power for pumping irrigation water and water for use in irrigating certain portions of the wildlife habitat, it would not have any measurable effect on any existing electric power or natural gas facilities under the jurisdiction of the Federal Power Commission, nor does it appear to have any effect on the future development of supplies and transmission of electric power or natural gas.

Response:

Noted.



### 13. NATIONAL PARK SERVICE

#### Comment:

We suggest that you consult the State Historic Preservation Officers of Washington, Idaho, and Oregon to determine if any sites eligible for the "National Register of Historic Places" will be affected by the proposed actions. The results of these consultations should be reported and documented in the final statement.

#### Response:

The Corps will contact the Washington, Idaho, and Oregon State Historical Preservation Officers to make certain that hatchery sites which may be selected do not conflict with National Register properties. This will be done during the preparation of supplemental environmental impact statements for the hatcheries, since the hatchery locations are not yet determined.

### 14. U.S. DEPARTMENT OF COMMERCE

#### Comment:

A number of geodetic control survey monuments are located along the Snake River. If there is any planned activity which will disturb or destroy these monuments, the Department of Commerce, National Ocean Survey, of which the National Geodetic Survey is a part, requires not less than 90 days notification in advance of such activity in order to plan for their relocation. This Department also recommends that funding for this project include the cost of any relocation required for these monuments. We request that this advance notification be given to: Director, National Geodetic Survey, Room 304A - WSC #1, 6010 Executive Blvd., Rockville, Maryland 20952.

#### Response:

An effort will be made to provide the 90-day notification if any monuments would be affected. Relocation of monuments would be undertaken.

#### Comment:

The National Marine Fisheries Service has worked closely with the Corps of Engineers and the Federal and State fishery agencies of Washington, Oregon, and Idaho in the development of the compensatory measures for anadromous fish proposed by the Corps of Engineers for its Lower Snake River Project. The level of compensation



proposed has been generally approved by the fishery agencies. Substantial work remains to be done on hatchery site selection and design which places a limitation on the degree of specificity with which the Corps can deal with the environmental impacts.

Throughout the statement, \$9.00 is used as the value of an angler-day for anadromous fish. The National Marine Fisheries Service has prepared a processed report entitled "Partial Net Economic Values for Salmon and Steelhead for the Columbia River System" by Merritt E. Tuttle, Jack A. Richards, and Roy J. Wahle, dated January 1975 which uses a value of \$28.00 per angler-day for anadromous fish in the Columbia River System. This value was developed on the basis of "Economic Evaluation of the 1967 Sport Salmon Fisheries of Washington" by Mathews and Brown who use techniques consistent with the Water Resources Council's "Establishment of Principles and Standards for Planning." It is our understanding that the simulated \$9.00 per day value is considered as a last resort which is to be used only when better values established by research do not exist.

Response:

The Corps of Engineers is required to use the figures within the Principles and Standards established by the Water Resources Council.

Comment:

This paragraph, Page I-2, Paragraph d, concerning the funding of the hatcheries, includes the statement that: "Operation and maintenance would be funded through future appropriations to the U.S. Fish and Wildlife Service." We suggest that this paragraph be deleted. The matter of funding the operation and maintenance of compensatory hatcheries constructed by the Corps of Engineers is currently under coordinated review by the Department of Army, Commerce, and Interior. It would seem inappropriate to include a recommendation on this matter at this time.

Response:

Please refer to the response to the U.S. Fish and Wildlife Service's similar comment on page 1 of this Appendix.

Comment:

In this same paragraph, reference is made to the possibility of adjusting the level of the hatchery compensation program. Since future evaluations may require either a downward or an upward adjustment, we suggest that the third sentence of this paragraph be revised



to read as follows: "Prior to the actual design of the facilities, the level of hatchery compensation will be reviewed, and possibly adjusted, taking into account such factors as the success of the screening program in protecting juvenile fish, adult returns from the transportation program, steelhead propagation at Dworshak Hatchery and adverse factors resulting from expanded powerhouse and increased peaking operations."

Response:

Because this section is an excerpt from the special report, it has not been changed.

Comment:

We suggest the addition of fish trapping and fish transport facilities to the listing of facilities that will be required, Page 1-7, Paragraph 1.

Response:

The revised draft environmental impact statement has been changed to eliminate the listing of hatchery component facilities. Such components will be covered at a later date in EIS supplements for each of the hatcheries.

Comment:

We suggest the addition of the main stem of the Snake River above the project area in the listing of streams that will be considered for acquisition of streamside lands for fisherman access.

Response:

The middle Snake River just above the project area is considered under the program. Page 1-9 indicates this more clearly. However, the middle Snake may be restricted if it is included in the wild and scenic river program.

Comment:

Annual benefits on Page 1-10, Paragraph 4, are estimated to be \$11,885,715. One of the factors used in calculating this figure is a \$9.00 value for an angler-day for anadromous fish. As indicated in the "General Comments" above, the National Marine Fisheries Service is using \$28.00 per angler-day. We suggest that recognition be given to this. The use of \$28.00 would obviously result in a substantially higher benefit figure.



Response:

Please refer to the comment and response on the same subject found on page A-12.

Comment:

We suggest that this paragraph, Page II-1, Paragraph 1, be expanded to include reference to the wider range of impacts of the fishery compensation program. The national and international aspects are reflected by the following quotation from the report of the National Marine Fisheries Service and the Fish and Wildlife Service entitled "A Special Report on the Lower Snake River Dams, Ice Harbor, Lower Monumental, Little Goose, Lower Granite," dated September 1972:

"The Snake River Basin is one of the most important fish producing systems in the United States. It supports large populations of anadromous and resident fish. Anadromous fish from the Snake River, particularly chinook salmon, contribute substantially to commercial and sport fisheries in the Pacific Ocean from California to Alaska. Steelhead trout support a huge sport fishery throughout the lower Columbia and Snake River and its tributaries. Most of the adult chinook salmon and steelhead trout that migrate upstream in Columbia River past McNary Dam enter Snake River. The sport fishery for anadromous, as well as resident species has developed substantially in the lower Snake River within the past decade."

The addition of this information would assist the uninformed in understanding the importance of the fishery, including an understanding of the fishery values presented in the section on Socio-economics on page II-42.

Response:

The environmental impact statement now contains this paragraph addition.

Comment:

The Region

We suggest inclusion on Page II-1, Paragraph 4, of the main stem of the Snake River above the project area in the listing of streams that will be considered for acquisition of streamside lands for fisherman access.



Response:

The middle Snake River has now been included in the fisherman access program. This access may be restricted if that portion of the Snake River is designated as wild and scenic.

Comment:

On Page II-22, Paragraph 1, the uninformed reader might be led to believe that all streams in the project area are of suitable quality for hatchery water supplies. This could be misleading since many of the streams are intermittent in flow, turbid, and too warm for anadromous fish hatcheries.

Response:

These qualifications are recognized. All streams are not adequate for anadromous fish hatcheries. The discussion on water quality has been modified.

Comment:

On Page II-43, Table 5, we suggest the use of \$28.00 for the value of an angler-day for anadromous fish. (See our comments above under "General Comments.").

Response:

Please refer to the comment and response on the same subject found on page A-12.

Comment:

Presumably the hatcheries would be designed so as to meet the State and Federal water quality standards and waste discharge permit requirements. It might be well to include a statement to this effect.

Response:

On page 4-4, the statement now indicates that hatcheries will be designed to meet the appropriate standards.

Comment:

This paragraph, Page IV-4, Paragraph 3, and Table 7 are based on the assumption that the hatcheries will be operated on re-use systems. Actually it is anticipated that at least some of the hatcheries will be operated on a single pass basis as indicated for certain of the hatcheries in Appendix VIII. The reduction of



99 percent in ammonia indicated in the last sentence of this paragraph is much higher than has been experienced at existing biofilter systems.

Response:

When the draft environmental impact statement was being prepared, it was believed that most hatcheries would be operating on a reuse system; however, since this time, it has been shown that several hatcheries may use the once-through system. The discussions have been rewritten accordingly. More information on hatchery design will be provided in later EIS supplements.

Comment:

At the end of the first sentence of this paragraph, Page IV-10, Paragraph 2, we suggest addition of the following: "and can result in significant quantities of undesirable solids being deposited in the streambed at the hatchery outfall."

Response:

Page 4-12 of this statement includes this change.

Comment:

The first portion of this paragraph, Page IV-10, Paragraph 3, assumes that the hatcheries will be operated on re-use systems. It is anticipated that at least some of the hatcheries will be operated on a single pass basis as indicated for certain of the hatcheries in Appendix VIII.

Response:

Please refer to the preceeding similar comment and response on this page.

Comment:

In the analysis of the values of the sport fishery in this section of the report, Pages IV-25 through IV-28, we suggest the use of \$28.00 for the value of an angler-day for anadromous fish. (See our comments above under "General Comments").

Response:

Please refer to the similar comment and response on page A-12.



Comment:

On Page VI-6, Paragraph 1, further reduction of the commercial and sport fishery harvests is not a viable alternative action. For example, the summer chinook fisheries have been practically eliminated, yet the runs in the Snake River have all but disappeared.

Response:

The elimination of the fishery harvest would not benefit the commercial or recreational aspects; however, it would benefit in overall population sizes. Additional fish would be available to migrate upstream and use existing spawning grounds; this effort would help insure the survival of the fish species. If allowed to reach satisfactory spawning grounds, the fish can reproduce. The statement now shows the summer chinook run has not been able to come back even with no harvest.

Comment:

While it may be possible to expand certain existing hatcheries to fulfill some of the compensation program, there is no possibility of fulfilling all the program in this manner as indicated in the first sentence of this paragraph, page VI-6, Paragraph 4.

Response:

On page 6-8 the statement has been changed to recognize this comment.

Comment:

c. Genetic Alteration of the Fish

Page VI-8, Paragraph 2. We feel that this paragraph is very misleading. While it is conceivable that salmon and steelhead may adapt to spawning in limited areas immediately below the dams, the reservoirs for the most part are entirely unsuitable for salmon and steelhead spawning, and it is most unlikely that strains of these fish can be developed "that will flourish under the conditions of the series of reservoirs.

Response:

Please refer to the response to a similar comment from the U.S. Fish and Wildlife Service on page A-3.

Comment:

On Page VII-1, Paragraph 2, the statement is made that an additional 18,300 fall chinook, 58,700 spring and summer chinook,



and 55,100 summer steelhead could also be available for the fishery. This may be misleading to the uninformed, with the conclusion drawn that these numbers represent the contribution to the fisheries. These are the numbers of fish to be returned to the Snake River, either to or above the project area. While it is true that a portion of these fish would contribute to the sport fisheries in local waters, a large contribution would be made to the sport, commercial, and Indian fisheries downstream.

Response:

On page 7-1, the statement now indicates that these additional fish will help insure high fish survival.

15. GEOLOGICAL SURVEY

Comment:

The regional geology of the Columbian Plateau, the Blue Mountains, the Northern Rocky Mountains, and the Snake River Plateau, as described on pages II-16 through II-21, is at best of little value in evaluating environmental impacts of the proposed hatcheries and wildlife areas. The landforms, slopes, geology, seismology, and engineering geology of the sites of the proposed facilities would be much more likely to reveal any geology hazards such as potentials for unstable slopes or natural foundations which may be damaging and costly to the facilities or may present dangers to the people using them.

Response:

Exact hatchery site evaluation and determination have not been made. Supplemental environmental impact statements on hatcheries will provide detailed analysis of the geological hazards of the area.

Comment:

We find the documents to be generally adequate and accurate in their description of the impact of the proposed hatcheries on the water resources of the local areas. However, we suggest that in Section IV.d, "Water Quality," some recognition be made of the possibility of ground-water impact. If ground water is used to supplement surface water (perhaps for temperature control), water level declines in the areas of withdrawal may occur. If the hatcheries use septic tanks for domestic sewage, the potential for ground-water contamination exists. Ground-water contamination may also occur from leakage through settling-basin bottoms, from wastewater runoff from sludge drying beds, or from accidental spills of liquids used in connection with hatchery operations.



Response:

The Corps will evaluate the possibility of ground water impacts from the proposed hatchery development. More detailed analysis will be available in subsequent supplemental Environmental Impact Statements.

16. WASHINGTON OFFICE OF PROGRAM PLANNING AND FISCAL MANAGEMENT

Comment:

Review of the draft environmental impact statement for the Lower Snake River Fish and Wildlife Compensation Program has been completed by agencies of the State of Washington. The review process was coordinated by the Office of Program Planning and Fiscal Management, acting in its role as the state clearinghouse.

Comments received from the Department of Ecology, Department of Fisheries, Department of Game, Department of Highways, Parks and Recreation Commission and the Department of Natural Resources are attached for your consideration in preparing the final statement.

Response:

Noted.

17. WASHINGTON STATE HIGHWAY COMMISSION

Comment:

Reference is made to your letter of March 12, 1975, requesting our review of the draft environmental statement for the above project.

We have completed our review and offer the following comments:

The possibility of increased traffic loads due to recreationists and tourists has been acknowledged, however, the statement should indicate that this may impose a premature financial burden on the Department of Highways.

Should the Corps elect to lease or designate lands abutting state highways for recreation use a potential conflict may arise, should the highway facilities require revisions which would utilize additional right of way.

We would encourage the Corps to give thorough consideration to compatible uses for those lands, particularly recreational, that abut highways. It is hoped that this may minimize future criticism relating to highway generated noise, exhaust emission and associated vehicular effects.



Thank you for the opportunity to review and comment on this information.

Response:

The Corps will consider your comments as appropriate during future specific compensation planning actions.

18. WASHINGTON DEPARTMENT OF ECOLOGY

Comment:

As you have requested, representatives of the Department of Ecology have reviewed this impact statement. Damming of the Lower Snake has placed tremendous stresses on the natural systems (particularly anadromous fish runs) which use the river. Fish and Wildlife compensation is an admirable goal and this EIS appears to contain a reasonably complete assessment of the proposed project.

We have been made aware, however, of local government concerns relating to the acquisition of land. The attached letter is forwarded for your information.

Thank you for the opportunity to review this document. The Department of Ecology is vitally concerned with the preservation of our States' bountiful natural amenities. We hope that any problems involved in the Lower Snake project can be resolved in order that its laudable objectives can be realized.

Response:

The Corps is aware of the opposition from the Columbia County Board of Commissioners. Please refer to response to their letter on page A-30 of this section.

19. WASHINGTON STATE PARKS AND RECREATION COMMISSION

Comment:

The Washington State Parks and Recreation Commission has reviewed the above-noted document and does not wish to make any comment at this time.

Because specific areas to be purchased have not been identified, the Washington State Parks and Recreation Commission wishes to be kept fully informed as more detailed data concerning land acquisitions becomes available.



Response:

The Corps will supply the Washington State Parks and Recreation Commission with more detailed information as it becomes available.

20. WASHINGTON DEPARTMENT OF NATURAL RESOURCES

Comment:

The draft environmental impact statement for the proposed Lower Snake River Fish and Wildlife Compensation...has been reviewed by the Department of Natural Resources. We have no comments regarding this proposal.

Response:

Noted.

21. WASHINGTON STATE DEPARTMENT OF GAME

Comment:

As you know our department, in concert with other environmental agencies of the northwest, has worked with the Corps of Engineers for more than a decade to mitigate problems associated with Snake River hydro developments. To review the conflicts and frustrations involved would serve no useful purpose here. We do think that the proposals, outlined in your "Draft Special Report for Compensation of Fish and Wildlife Losses" and discussed in your draft EIS, generally reflect feasible approaches to mitigating losses which have occurred. In all candor, we feel that mitigation rather than compensation will be the end result. The magnitude of losses and the extreme difficulty of achieving full replacement of losses in numbers and kinds of fish and wildlife affected are such that compensation is really impossible. We do recognize that the Corps sincerely tried to meet the compensation objective, as did other agencies involved. Despite these efforts, we must recognize that this objective was not and can not be realized.

Response:

Noted.

Comment: There is additional justification for acquisition of easements on 15,000 acres of rangeland (a, I-3) because access to project lands is thereby made possible. This acquisition also compliments developments for wildlife on both public and project lands.

Response:

Noted.



Comment:

We emphasize that the 500 acres of land acquired in fee (b, 1-3) would be generally in narrow strips flanking natural water courses. There would be little or no impact on agriculture; in fact, soil and water conservation and aesthetic benefits would be accrued, along with those gained by wildlife.

Response:

The Corps is aware that the riparian narrow strips along natural water courses will have little or no impact on agriculture. We are also aware of the benefits to soil and water conservation that would be gained in the area.

Comment:

You may wish to mention (b, 1-10) that it is implicit in our department's land acquisition and development program to manage public use. Our goal is to prevent damage to landowners' property, crops and other sensitive areas of concern.

Response:

Noted.

Comment:

Some minor change in language (2, II-3) might clarify the approach to use and values of the 500-acre fee acquisition. The lands in question would have to be selected for their potential for increasing wildlife use, as well as for their existing wildlife values. Also, it would be better to state that land involved may be in agricultural production, but would be in strips generally located along natural water courses.

Response:

This sentence has been changed in the Revised Draft Statement. (See page 2-3.)

Comment:

To be accurate, you should consider changing your designation of "brook trout" and "dolly varden" from trout to char (II-4).

Response:

Although it would be more accurate to list brook trout and Dolly Varden as char, we did not in the draft statement because the general public considers these fish to be trout.



Comment:

In your discussion of "Threatened Species of Wildlife" (h-II-37) it may be wise to consider two items: a) whether the animal or its habitat exists in this area, and b) whether the animal or its habitat currently are found there or existed there prior to implementation of the projects. This would add greater perspective to your discussion and permit more objective appraisal of the consequences of past and future actions.

Response:

This method of inventory for threatened animals and their habitat will be considered in the supplemental EIS concerning hatchery development. The compensation report furnished to the Corps by the Fish and Wildlife agencies did not recommend specific measures for rare or threatened species which may have been present before the construction of the lower Snake Lock and Dam projects.

Comment:

The section "Socioeconomics" (k, II-42) includes data on family income and fisheries economic values. Regarding the latter, are these annual values? Also, wouldn't it be appropriate to include some indication of values of wildlife-oriented recreation? We estimate that annual expenditures on consumptive and non-consumptive recreation relating to wildlife are about 27 million dollars in the six counties affected by the projects. (Please see attached, Table 1). These data are not specific to project-impacted lands, but they do tend to reflect socioeconomic values of and to the general area.

Response:

The wildlife valuation is included on page 2-29 in this statement. The fishery values are annual.

Comment:

Though we recognize the constraints within which federal agencies must operate when assigning economic values to steelhead and resident sport fisheries, we must point out that these values are unrealistic. Criteria used are outdated and arbitrary and do not reflect the true worth of these resources (These comments also apply to IV, 27, 28.)

Response:

Please refer to the response to a similar comment from the National Marine Fisheries Service on page A-12.



Comment:

Earlier, we mentioned that, because of the location and type of land which would be acquired, impacts on agriculture would be very minimal. We suggest that references to changes in land use reflect this consideration.

Response:

The Revised Draft Statement has been changed to reflect this viewpoint.

Comment:

In addition to items mentioned (d, IV-7), you may wish to add that restoration or development of riparian vegetation on denuded sites would lead to decreasing temperature of water.

Response:

Page 4-5 of this statement now includes this information.

Comment:

The section, "Effect of Wildlife Habitat Development", (IV-19-20), while generally describing the effects of the proposed action, does need qualification. We acknowledge the benefits which are contemplated. But it must be recognized that despite all our efforts, the numbers and kinds of wildlife, which occurred under pre-project conditions, will not be restored.

Response:

On- and off-project development will provide habitat for many forms of wildlife. We do not expect to fully restore the wildlife losses in kind, but we do believe that we can develop habitat to provide some compensation for non-game species.

Comment:

Our earlier comments about socioeconomic values of wildlife could be included in this portion of your draft (IV-25).

Response:

This is an existing value and would not be an impact of the compensation program. It is not repeated in the suggested section in an effort to reduce repetitive text.



Comment:

The footnote 2/ (IV-32) should be changed to state: "Appreciative use is increasing at an average rate of 4.4 man days per year in proportion to every 100 man days of hunting use in the State of Washington."

Response:

This change has been made on page 4-28.

Comment:

Your reference (V-1) to removal of lands from the local property tax process may be misleading. If the Game Department is funded to acquire fee title to fish and wildlife lands as proposed (see p. I-9), in lieu taxes would be paid by the department at the option of the county commissioners involved. Because this issue has been raised several times, we feel it is important that it be clarified.

Response:

The statement now indicates that local property tax bases will not be significantly affected on those lands proposed for funding for acquisition by the game department.

Comment:

Obtion b., "Dam Removal", would also result in gradual restoration of habitats and the wildlife found there. Cost of mitigation would be eliminated under this hypothetical circumstance.

Response:

Noted.

Comment:

This section is very well done. We do suggest you consider long-term aesthetic, economic and other fundamental contributions to man's well being that will result from the proposed action. The trend toward increased leisure time accentuates the need for providing the means whereby this time will yield positive values to our nation and its citizens.

Response:

Noted.



Comment:

There is an error in the table (2A-Rocky Ford Creek) which refers to rearing program for Lower Snake River Compensation Plan. Size should be 2.5 per pound and number of fish, 233,000. Total poundage, 93,000, is correct.

Response:

The appropriate change has been made on page 11 of Appendix I.

Comment:

Finally, we suggest that portions of your appendices which pertain to biota of the Snake River be reexamined and perhaps presented in another format. First, the actual geographic area should be defined. Second, distribution of species (or communities) within this geographic area would help. Third, some quantification, or other means of indicating amounts of significance, of the plants and animals listed would add meaning. Also, our previous reference to the need for distinguishing between pre and post project biota is germane, here.

Response:

Of necessity, the regional listing of biota is a general inventory. Much more detailed inventory information will be included in supplemental statements for the specific hatchery sites. The State Game Department, under the State Environmental Policy Act, may provide detailed information on proposed wildlife compensation lands as these lands are determined.

## 22. WASHINGTON DEPARTMENT OF FISHERIES

Comment:

p. 1, Description of Action, 9th line. After "streambank access on" insert the words "the Snake River".

Response:

This change has been made in the Revised Draft Environmental Statement.

Comment:

p. 1, Environmental Impacts, 1st line. Change the word "increase" to "restore".



Response:

The Corps will increase the existing wildlife populations but the project will not be established to restore the populations inasmuch as "in kind" compensation cannot be obtained through proposed development programs.

Comment:

pp. 1-2, paragraph d, 2nd sentence. Request that operation and maintenance of the hatcheries be funded through direct appropriations to the managing state agency responsible for hatchery operations.

Response:

Please refer to the response to the U.S. Fish and Wildlife Services, page A-1.

23. IDAHO DEPARTMENT OF WATER RESOURCES

Comment:

We suggest the possibility of improving natural reproduction by a program which would provide for the improvement of existing habitat also be considered. For example, Potlatch River, Lawyer Creek, Cottonwood Creek and others draining the Palouse and Camas Prairies could produce more fish if improved land management and stream rehabilitation were provided. An evaluation should also be made to compare the overall effectiveness of a large hatchery as compared to several small hatcheries.

Response:

Land management and stream rehabilitation are being considered as they relate to the proposal. The proposal involves several potential hatcheries rather than one large facility. The exact number, size, and location of hatcheries has not yet been determined.



#### 24. IDAHO FISH AND GAME DEPARTMENT

Comment:

We are in general agreement with the fishery compensation measures described and their related impacts. As near as we can determine, the Special Report and Draft Environmental Impact Statement lack any reference to wildlife losses and compensation in Idaho.

Response:

The Environmental Impact Statement indicates that 50 acres of fisherman easement will be acquired somewhere in Idaho to compensate for fishing opportunities lost. Riparian revegetation which will occur due to the completed removal of the Washington Water Power Dam on the Clearwater River by the Corps as part of the Lower Granite project offsets some of the wildlife losses which occurred with the filling of Lower Granite Reservoir. Much of the land inundated by Lower Granite Dam was urban or sub-urban and offered limited wildlife habitat.

#### 25. OREGON STATE CLEARINGHOUSE

Comment:

We suggest that the following points be considered in the preparation of a Final Environmental Impact Statement regarding this project. See attached comments from Fish and Wildlife Commissions.

Response:

The comments referred to are covered in the next discussion.

#### 26. OREGON FISH AND WILDLIFE COMMISSIONS

Comment:

Page 1-2, Item (d), Third Sentence: If level of hatchery compensation is to be reviewed before actual design, adverse effects of construction of three additional powerhouse units at each dam and effects of peaking operations should be considered as well as beneficial effects of screening and hauling. Such additional adverse effects were not included in the original study by the fisheries



agencies since it was through that later beneficial actions (screening and bypassing or screening and hauling) would balance out later adverse effects (increased powerhouse size and increased peaking operations), and since no information was available to evaluate some of these actions.

Response:

The success of traveling screens on the existing damsites as well as truck transport of migrating smolts will determine greater or lesser hatchery compensation in the future.

Comment:

Part VI-6: a. Fish Management (as an alternate to compensation). It is hard to understand how management of fisheries can compensate for loss to the fisheries due to the dam construction program on the Lower Snake River. Even if we eliminated the fisheries totally, there is abundant evidence that without hatchery supplementation, wild runs of salmon and steelhead cannot reproduce themselves and therefore will be eliminated.

Response:

Please refer to the response to a related comment of the Department of Commerce, page A-17.

Comment:

Page VI-8: c. Genetic Alteration of the Fish. Genetic selection may have already had some influence on salmon and steelhead passing dams. However, to infer that spawning in reservoirs could result in any significant production is contrary to known biological requirements of the species concerned. Sockeye (which are not involved in the current compensation program) do spawn in some lakes but under conditions quite different from those found in the Lower Snake River reservoirs.

Response:

Please refer to the response to the U.S. Fish and Wildlife Service comment on the same subject, page A-3.



## 27. COLUMBIA COUNTY COMMISSIONERS

### Comment:

This Board has been advised that an environmental impact statement (EIS) which contains serious errors and omissions is invalid. The draft EIS discussed herein contains numerous serious errors and omissions. For example, the draft EIS seeks authority to obtain easements over approximately 33,000 acres of privately owned land and purchase fee title to an additional 700 acres. Col. Conover, however, has informed this Board that the Corps only intends to acquire easements over 23,000 acres of land and purchase fee title to an additional 600 acres. This Board regards the failure of the draft EIS to comply with the stated intent of the Corps as a serious error which renders the draft EIS invalid. A serious omission exists in the draft EIS in its failure to consider prolific increases in bird and wildlife populations in the thousands of acres of newly created irrigated land. The draft EIS does not discuss the difficulties which the mitigation plan creates for local government by reducing the tax basis and impairing local land use planning programs. The draft EIS also fails to consider the negative impact which the mitigation plan will have on present and future private landowners. Private landowners with reasonable prudent plans to construct homes or cabins or to engage in subdivision activity will be prevented from such beneficial use of their lands which are subjected to the mitigation easements. This Board firmly believes that any one of the above mentioned errors and omissions is of such a serious nature as to render the draft EIS patently invalid.

### Response:

The statement referred to is, as stated, a draft. Although effort is made to make it error-free, some do escape notice, and one of the purposes of sending a draft out for review is to find these errors and correct them before the final statement is prepared. Land acquisition as shown in the EIS calls for 200 acres in fee for hatchery locations, 500 acres in fee for off-project riparian habitat for upland game cover and hunter access, and five acres in fee for placement of watering devices. Lands acquired in fee or easement are 750 acres of streambank lands for fisherman access. These lands will be acquired in easement, if possible, but in certain instances the landowners may prefer to sell in fee.

Easements are to be acquired on 10,000 acres of farmland, surrounding the 500 acres of fee lands mentioned above, for hunter access and 15,000 acres of rangeland in draws adjacent to project lands for hunter access. These lands total 905 acres in fee, 25,000 acres in easement, and 750 acres in fee or easement. These acreages will be corrected in the environmental impact statement.



The recommendation for wildlife fee and easement lands for hunter access will be reduced from 500 acres in fee and 10,000 acres in easement to 400 acres in fee and 8,000 acres in easement, the acres for which initial funding is requested. Also, at the Commissioners' meeting in Dayton <sup>1/</sup> on 10 March 1975, it was promised to correct a statement on page I-3 of the EIS which states "15,000 acres of land in fee or easement" by saving "easement only". This revised draft statement includes this correction.

The only extensive newly irrigated lands along the lower Snake River are located in the Ice Harbor reservoir on the south shore. Other increases in croplands along the Snake River are dryland crops and not dependent on irrigation from the reservoirs. In the opinion of wildlife managers, sprinkler irrigation methods tend toward more intensive farming and a removal of wildlife cover. More food is produced for wildlife with increased farming but the necessary cover is lacking. Also, a change in land use benefits some species of wildlife while causing a decrease in other species which were dependent on the undeveloped type of habitat, so the final total of wildlife numbers is not necessarily always a 100-percent benefit.

The basic land use of the lands on which easements are obtained would not be changed. The lands would remain in their present ownership and be subject to the same tax structure as they are now. The owners would be paid a reasonable and agreed-upon amount of money for the privilege of sportsman access. Taxes on lands obtained by the Department of Game in fee would, as explained by Mr. Steel of the Department at the 10 March meeting, be paid by the Department or, if the county preferred, they would receive one-half of the violation fees obtained in that county. Except for the approximate five acres obtained in fee in small 0.1-acre plots scattered throughout the lower Snake River area and the 200 acres for hatchery sites, there would be no change in the present tax base structure.

Private landowners who have future plans for their lands, the development of which would be incompatible with their use for wildlife management, would not be willing sellers to begin with. With the exception of lands required for fish hatchery locations, all land acquisition will be from willing landowners. Because of the

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<sup>1/</sup> After receipt of the letter of comments from Columbia County Commissioners, a meeting was held on 10 March 1975 wherein representatives of the Corps of Engineers answered questions raised by the Commissioners and by other local landowners who attended.



critical needs of a fish hatchery, once the lands which meet the requirements are located they will be acquired through negotiations, if possible. If this is not successful, then condemnation may be necessary to acquire them.

Comment:

The National Environmental Policy Act (NEPA) and the State Environmental Policy Act (SEPA) intend that environmental decisions be made in the light of public scrutiny. 115 CONG. REC. 40.416 (DAILY ed. Dec. 20, 1969) (Remarks of Sen. Jackson). The environmental decisions detailed in the draft EIS are entirely devoid of such scrutiny since the Corps has not held and does not plan to hold any public hearings on the draft EIS. Hearings were held in 1973 on a proposed mitigation plan, but the draft EIS contains concepts which significantly differ from those discussed in 1973. Such differences include changes in the number of proposed game refuges and the role which the State Game Department is to play in negotiating real estate transactions and administering the plan. Since there will be no public hearings on the draft EIS in its own right, this Board contends that the draft EIS is unlawful under the above mentioned statutes.

Response:

The public scrutiny covered in the National Environmental Policy Act (NEPA) took place in the review of the Draft Environmental Impact Statement. Thirty-two public organizations and 44 individuals who had written the Corps after the four 1973 public hearings, expressing deep interest in the compensation plans, received copies of the draft. Thirty-two copies have been sent to organizations and individuals who requested copies after learning of the DEIS through news releases.

There have been significant changes in the compensation program. The concepts expressed in the 1973 public meetings are the concepts discussed in the environmental statement. Under NEPA, public hearings are not required. In Section 102(c), it states: "Prior to making any detailed statement, the responsible Federal official shall consult with and obtain the comments of any Federal agency which has jurisdiction by law or special expertise with respect to any environmental impact involved." The Corps consulted with the U.S. Fish and Wildlife Service and the National Marine Fisheries Service, which are the Federal agencies with special expertise in the area of fish and wildlife. The Council on Environmental Quality has issued guidelines to NEPA. Regarding public hearings, these guidelines indicate in the Code of Federal Regulations, Title 40, Chapter V. Part 1500, Section 1500.7(d): "Agency procedures developed pursuant to S1500.3(a) of these guidelines should indicate as explicitly as possible those types of



agency decisions or actions which utilize hearings as part of the normal agency review process, either as a result of statutory requirement or agency practice. To the fullest extent possible, all such hearings shall include consideration of the environmental aspects of the proposed action. Agency procedures shall also specifically include provision for public hearings on major actions with environmental impact, whenever appropriate, and for providing the public with relevant information, including information on alternative courses of action. In deciding whether a public hearing is appropriate, an agency should consider: (1) the magnitude of the proposal in terms of economic costs, the geographic area involved, and the uniqueness of size of commitment of the resource involved; (2) the degree of interest in the proposal, as evidenced by request from the public and from Federal, State, and local authorities that a hearing be held; (3) the complexity of the issue and the likelihood that information will be presented at the hearing which will be of assistance to the agency in fulfilling its responsibilities under the Act; and (4) the extent to which public involvement already has been achieved through other means, such as earlier public hearings, meetings with citizen representatives, and/or written comments on the proposed action. Agencies should make any draft environmental impact statements to be issued available to the public at least fifteen (15) days prior to the time of such hearings.

The compensation plan has been thoroughly discussed at four public meetings, by written comments, by two special consultants, and at a 10 March 1975 Columbia County Commissioners meeting in Dayton, Washington. An additional public meeting could not be justified, considering the extent to which environmental issues have already been covered by past meetings. Corps Engineer Regulation 1105-2-507, paragraph 16.a(7), states that a late-stage public meeting is optional. There is no requirement for a public meeting on an environmental impact statement. Such meetings are optional.

Comment:

NEPA and SEPA contain similar language directing responsible officials to compile detailed statements for proposed actions significantly affecting the environment. Each statute continues by stating that, prior to making the requisite detailed statement the officials shall consult with and obtain comments of any public agency which has jurisdiction by law or special expertise with respect to any environmental impact involved. Comments received from local agencies and local governments are to be forwarded to prescribed agencies along with the detailed statement. This Board has attempted to provide the Corps with input and information regarding the mitigation plan. These statements and documents are published and are on file with the Corps. However, the Corps has



failed to transmit such information, thus violating the above mentioned laws. Since the draft EIS has been conceived without due regard for lawfully defined procedures, this Board feels that the draft EIS and the mitigation plan espoused therein are clearly unlawful.

Response:

As mentioned in response to Point II, NEPA requires consulting with the Federal agency that has expertise in the environmental aspects involved with the proposal. The Corps consulted with the U.S. Fish and Wildlife Service and National Marine Fisheries Service. Comments on the draft from local agencies and governments and private citizens along with our response to each comment, are forwarded to prescribed agencies in this revised draft statement. The information filed with the Corps has been considered in preparing the final report on the compensation plan.

Comment:

The Corps presently owns over 25,000 acres of project lands, some of which has been under Corps control for over ten years. Appendix VI of the draft EIS establishes that those lands are not presently undergoing any significant development aimed at enhancing wildlife potential thereby helping to mitigate alleged wildlife losses. Although the Corps states that it generally possesses such management authority, such a program is subject to official Corps approval and funding procedures. In view of these facts, it is entirely incongruous for the Corps to now seek the acquisition of private lands for wildlife mitigation. Until such time as the Corps can demonstrate that its own land is under a mitigation program, and the effects of such program analyzed, this Board will continue to believe that further land acquisition by the Corps for mitigation is entirely unjustified.

Response:

A design memorandum outlining detailed plans for development of wildlife habitat on project lands has been submitted to higher authority for approval and funding. This report was prepared by an independent consultant firm working for the Corps which conducted an extensive survey of the area as to wildlife species present, their habitat requirements, areas suitable for development, soil and vegetation studies, and most suitable means of accomplishment. It was estimated by the consultant that maximum development of project lands could replace 70 to 80 percent of pre-project wildlife numbers. There are extensive reaches of riprapped shoreline and vertical basalt cliffs which have no development potential, and other areas of parks and port facilities which have only limited wildlife values. This level of wildlife replacement was also stated by the Washington Department of Game in a separate report. According to the Fish and Wildlife Coordination Act, Public Law 85-264, 85th Congress,



August 1958, the Corps is required to provide compensation for the fish and wildlife losses caused by project construction. Since it is the best expert opinion that full replacement cannot be obtained on project lands, other methods must be used to make up the difference. We expect that the development of wildlife habitat on project lands will be under way prior to consideration of the Lower Snake River Compensation Plan by Congress.

Comment:

The draft EIS proposes to establish authority in the Washington State Game Department to negotiate land transactions and administer the plan. Nowhere, however, does the Corps explain how it can effectively vest such power in a state agency. It also fails to describe how this state administrative structure is to be budgeted and how its funds will be expended. This Board firmly believes that any plan failing to accommodate questions dealing with authority and financing is simply too incomplete to comprise a valid proposal.

Response:

The State Department of Game already has the power to acquire and administer lands for fish and wildlife purposes with funds made available for that purpose. Federal funds can be made available to the Department through various means of agreement. This is described in more detail in the Compensation Report. The reason it was not included in the EIS is that the EIS details the effects of a proposed action, not all the details of how an action is to be accomplished. The Department of Game does not have the power of condemnation for this proposal.

Comment:

This Board feels that the mitigation proposals offered by the Corps have been developed without the benefit of an accurate appraisal of wildlife populations and habitat conditions in the project area. The Board is reinforced in this position by the attached letter of Director Carl N. Crouse of the Washington State Game Department. The failure of the Corps to accumulate persuasive pre-dam construction and post-dam construction scientific data renders any mitigation proposal so arbitrary as to be utterly meaningless.

Response:

We realize that limited data exist on pre-project levels of wildlife. Data on wildlife populations have been and are being compiled since construction of the lower Snake River dams began.



The data are more complete on the later projects than on Ice Harbor, and the State and Federal wildlife agencies feel that they are sufficient to establish a basis for compensation. This premise was further verified by an independent consultant retained by the Government to review the available data and the agencies' report. It was his opinion that, though complete data were lacking, the extended period of construction of the dams permitted a comparison of wildlife on a completed project with wildlife in a project area prior to construction and that sufficient data did exist to support the claims of losses and the recommended measures for compensation.

Comment:

Public access rights to the Lower Snake River were very limited prior to initiation of the dam projects. These access rights were increased many fold with the outright purchase of over 40,000 acres of land on the Snake for public useage. In spite of this dramatic increase in public access rights, the draft EIS seeks to acquire similar rights along 150 miles of streambanks on tributaries to the Snake. This demand lacks any showing of genuine need and would constitute an unnecessary governmental infringement on private landowners along the tributaries if enacted. This Board is firmly opposed to any plan which unnecessarily diminishes the rights of private landowners.

Response:

Of the approximate 40,000 acres acquired for project purposes in the lower Snake River reach, some 14,400 acres are inundated by reservoirs leaving about 25,500 acres above the reservoirs. Railroad and highway rights-of-way, recreation areas, and port facilities account for a considerable portion of the project lands above the pools. Topography is also a limiting factor.

The purpose for acquiring streambank access easements on tributary streams is to provide fisherman access for steelhead fishing. Even though access points to the Snake River may have been very limited prior to initiation of the dam projects, the entire river was accessible by boat. A substantial steelhead fishery existed in the open river reaches and was accessible to boat and bank fishermen. After inundation by the reservoirs, this fishery was drastically reduced to short reaches of fast water below each dam. Studies conducted to date indicate that steelhead cannot be readily caught in the reservoirs. In order to replace this lost fishing opportunity, it is necessary to do it in areas where the fish can be caught. Acquisition of easements along streams of known good steelhead fishing is the most reasonable way of replacing this lost recreation opportunity and assuring that it does remain available.



Comment:

The Columbia County Board of Commissioners has worked hard to keep abreast of environmental laws and programs. Our local efforts include such things as land use planning programs, flood control programs, the formation of weed control districts, strict control of subdivision activity, and comprehensive solid waste management. State and federal programs which complement efforts to maintain the high quality of life in Columbia County will be steadfastly supported by this Board.

However, this Board stands firmly opposed to any plan such as the one which Corps has produced regarding wildlife mitigation when such a plan is clearly illegal, illogical and unnecessary.

Response:

The views and opinions of the Columbia County Commission have been considered during the planning and coordination process. Such views have been and are included in the record as public information.

28. WHITMAN COUNTY PARK AND RECREATION BOARD

Comment:

Page 1-3-a and b: I strongly agree with land acquisition on a willing-seller basis. The problem that appears is an apparent lack of funds allocated for habitat improvement and subsequent maintenance of the 10,000 and 15,000 acres of easement lands. I realize that this habitat program is only feasible if approved by the landowners, however, the key to wildlife populations in this area will be habitat availability. If there are not sufficient funds allocated and available in the initial phase and for future habitat development and maintenance, then I feel the program would be jeopardized. Consideration should be given to higher payments for easements authorizing habitat development.

Response:

Hunter easements are not designed to supply high-quality wildlife habitat. These easements would provide only hunting opportunity. The riparian "core" zone would provide the necessary wildlife habitat. Easements would provide some habitat but not as their direct design. On-project development would establish approximately 1,094 acres of wildlife habitat in addition to the 400 acres of off-project lands. This wildlife habitat development would provide adequate wildlife population for hunting.



The project would alter only five acres of easement land (50 one-tenth-acre guzzler sites) from their present use. The remaining easement would not change the basic use of the land. The funding is adequate for the obtainment of hunting easements during the appropriate hunting seasons.

Comment:

Page 1-9-b: I feel it would be in the best interest of the site, the wildlife, and the recreation users, to offer numerous small parcels, comprising a minimum of 500 acres, and adding more acreage, if available, and financially feasible. The smaller parcels should be selected and located in such a manner as to provide optimum habitat for wildlife and equitable distribution throughout the area for the recreationists. The smaller parcels with proper location would serve to reduce use impact by hunters (hunting pressure) and provide opportunities for visual sightings by wildlife photographers, bird-watchers, and sightseers.

Response:

All wildlife habitat areas would be open during the easement period for wildlife photographers, bird watchers, and sightseers. On-project habitat would be open year-round. Concerning the size of the wildlife habitat developments, your comment would be considered in selecting possible easement areas.

Comment:

Page 1-9-b: I would question the necessity to limit the funding for ten years. The life of the projects are much longer than that period and the recreation needs for such compensation is as long or longer.

Response:

The 10-year funding limitation would stimulate early action in the acquisition and the development of wildlife habitat. Some limitation is needed in order to define goals and costs involved.

Comment:

In the description and location of the thirty-one habitat areas for the Lower Snake River, there was an area from Wawawai to the Whitman County/Nez Perce County boundary without any areas designated as wildlife habitat. I realize that there is a very limited amount of land adjacent to the reservoir available in these areas; however, there are many side canyons with some potential for habitat improvement. This area receives a high concentration of recreational use



for both hunting activities and photography/sightseeing. The development of the recreational areas at Wawawai Bay, Wawawai Landing, Blyton, and Sugarloaf, together with the new road system, will serve to greatly increase this area's attraction for recreational use. Emphasis should be placed on habitat development in this area. I would project that this area has one of the highest concentrations of recreational use as can be found along the Lower Snake River (outside of developed sites).

Response:

Although there is the possibility of creating wildlife habitat on the north shore of the Lower Granite Reservoir, the cost of such development would be far too prohibitive. Land with a much greater potential for wildlife habitat exists on the south shore. This project does not exclude the possibility of development in the future, but at this time development of the north shore does not appear to be practical. The relocation of road and railroad through the north shore area restricts development in this location. Wildlife species are present in the side canyon areas and will continue; however, no effort is planned to intensify the wildlife populations there because of the limited habitat opportunity.

Comment:

Some of my general comments are:

It would help to clarify the status and responsibilities of the agencies involved in the various phases of the fish and wildlife compensation plan, if a flow chart were developed to depict:

1. The stages at which responsibilities were turned over to other federal and state agencies from the Corps of Engineers.
2. The specific responsibilities, both short and long term, of each agency involved.
3. The emphasis of each phase and funding allocated.

Response:

Your general comments have been noted. At this stage in the planning, all of the details and timing of events have not been established. The discussion on pages 1-4 to 1-11 of this statement described the nature and relationships regarding the proposed action. Development of a flow chart at this time could only repeat the information referred to since details are not available. A flow chart could be developed after authorization as more arrangements are known.



Comment:

There is an area which presently supports fair wildlife population at Central Ferry and immediately upstream. I feel this area should also be designated as a wildlife habitat area and so managed.

Response:

The consultants who studied the Lower Snake River region did not select this area as wildlife habitat development zone. Part of the land at Central Ferry is a developed state park and part is a port area owned by the Port of Whitman. Such uses limit its value as wildlife habitat.

Comment:

I am not qualified to assess the ability of the Palouse River in Whitman County for stocking, however, strong consideration and study should be given to it as a river for rainbow trout stocking. With the loss of the anadromous fishing, there remains only bass and crappie type fishing. Whitman County, will not receive any direct, tangible benefits from the fish compensation aspect within the county itself.

Response:

The Washington State Department of Game will cooperate in selection of stocking areas. The Palouse River may receive part of the rainbow trout made available through hatchery production.

Comment:

Another area that should receive emphasis for habitat programs, both short and long term, is on project lands that the Corps presently owns adjacent to the river.

Response:

Appendix G of the statement indicates the current development plans for project lands.

Comment:

Wildlife photography, bird-watching and sightseeing are gaining in popularity. These activities should also be stressed in addition to hunting as very worthwhile returns for money expended in the compensation program.



Response:

The value of non-harvest recreation days spent at compensation development areas has been considered in the statement. Forty three thousand five hundred user-days for non-harvest participation have been estimated to occur at habitat development areas.

Comment:

The degree of access should vary for the habitat areas acquired in fee and through easements. All areas should not be readily accessible for public use. Access should be provided, however, it should offer a challenge to the recreationists to utilize some of the areas. The tops of draws or side canyons may be one example of good habitat potential, but not easily accessible.

Response:

Your comment has been noted.

Comment:

In Whitman County we have lost one of most, if not the most, natural areas available for wildlife habitat - the Snake River and its riparian vegetation. In addition, the south eastern corner has had extensive relocation work conducted along the shoreline. Consequently, the habitat along the Snake River has been seriously reduced and that coupled with a general lack of public land in Whitman County (96% privately owned) creates a situation placing our wildlife populations in jeopardy. I feel strong consideration and emphasis should be given to Whitman County in the compensation program for fish and wildlife.

Response:

There is a possibility that the Palouse River would receive trout planting through the compensation program. The Palouse would also be considered for the development of wildlife habitat zones.

29. WASHINGTON STATE FARM BUREAU

Comment:

Loss of tax base: Presently, the legislature of the State of Washington is in session with a monumental task of writing a state budget. State governments are continually in search for more funds



with which to operate state governments. Also several laws are being passed or considered that have a fiscal impact on local and county governments. The question then becomes - can our local, county and state governments afford to lose any more tax base (i.e., acquisition of private lands by state and federal governments) on which most of the local and county governments depend? This question has not been discussed in the report in any manner -- A glaring error.

Response:

The location of wildlife habitat is not specifically known during the preauthorization stage. The total wildlife project would result in the loss of five acres to the tax base. The Washington State Department of Game would pay property taxes or, if the County officials prefer, they would transfer one-half of the violation fees obtained in that county. Forty acres of land acquired for a Washington State Department of Fisheries salmon hatchery would not be taxable. Other hatchery sites would involve a loss of tax base.

Comment:

Impact on farmer/landowner and his operations: The supposed loss to the sportsman and to the environmentalist is the main theme of the entire report. Not once is the loss to the farmer/landowner addressed nor are the rights of private property owners given any consideration. The entire statement ignores the side of the farmer/operator and assumes that the greatest overlying need is for compensation for fish, wildlife and waterfowl as if they had feelings the same as human beings. Of course, the push is, as stated before, from sportsmen and environmentalists. The actual cost to the farmer to comply with the regulations, to have the general public be given access rights to his property and other requirements such as fencing waterways, bird and game habitats is not given any study either. Finally, the "willing seller-willing buyer" concept sounds good, but in fact does not operate that way. Rather, when the government wants the land, it takes it or imposes such restrictions upon the landowner that he must become a "willing seller".

Response:

The willing-seller concept is the prime method of preserving owners' rights. The owner is the decision maker concerning his land. If he does not wish to sell or establish easements on his land, he is free to not sell. There will be no condemnation for hunter or fisherman easements or wildlife habitat areas. Condemnation will be requested, if necessary, for hatchery sites.



Comment:

Production of food and fiber: Our American farmers and farmers within the State of Washington must be encouraged for increased production to feed and cloth a hungry nation and world. Citizens of the state have spoken loud and clear regarding their wishes for the future of Washington State through the Governor's "Alternatives for Washington" program. They want an agriculture oriented economy. The proposed report goes a long way in restricting a viable agricultural industry in southeastern Washington.

Response:

The compensation plan would not create a non-agricultural area, as game harvest constitutes a form of food production. Wildlife habitat would blend in with the "Alternatives for Washington" program. Neither riparian wildlife habitat zones nor easement would significantly interfere with the agricultural activities of southeastern Washington. The proposed willing-seller acquisition and easement program would actually commit lands to open space and agrarian uses and constrain other forms of land development such as subdivisions and commercial use.

30. ASWSU ENVIRONMENTAL TASK FORCE  
WASHINGTON STATE UNIVERSITY

Comment:

The fish compensation program (i.e., hatcheries) does not, in our opinion, begin to compensate for the environmental damage and the extremely high economic costs that constructing and operating such facilities would incur. The construction of hatcheries, as explained in the Draft Environmental Impact Statement (EIS), would cause erosion, esthetic damage, displacement and killing of wildlife, etc. The operation of the hatcheries would involve not only substantial, annual federal allocations, but would cause stream pollution (due primarily to the discharge of wastes) and the real possibility of accidental, damaging drug discharge into major waterways. In addition, we note (page IV - 14) that 48% of the hatchery-reared fish will die due to the Lower Snake River dams alone (obviously excluding losses at the Columbia River dams). We therefore encourage you to abandon plans for fish hatcheries for the Lower Snake River.

Instead we would encourage the increased compensation measures for terrestrial (both fauna and flora) and avian species. We note that while wildlife compensation measures would seem to generate more environmental and recreational benefits than hatcheries, the



hatcheries have received more attention by the Corps of Engineers in the Draft EIS. We believe that efforts to restore wildlife habitat should receive much more attention, time and funding than the hatcheries.

Response:

The Corps of Engineers arrived at recommendations based on input from the U.S. Fish and Wildlife Service, the National Marine Fisheries Service, and the various State Game Departments. This resulted in the Corps' judgment as to the best overall approach for fish and wildlife.

Comment:

In addition, we would strongly encourage the Corps of Engineers to formulate definite plans for wildlife habitats along the Whitman County shores of Lower Granite Reservoir. Such habitats would help to compensate for wildlife lost from Whitman County due to the recent construction of the Lower Granite Dam and the local, attendant road and railway construction. The Whitman County shores are utilized by citizens of Moscow, Pullman, Lewiston and Clarkston -- among the most densely populated areas within the geographic scope of the Lower Snake River Fish and Wildlife Compensation Program. We cannot help but note that while the Snake River shores of Garfield, Asotin, Franklin and Columbia Counties seem rife with wildlife compensation measures, the Whitman County shores of Lower Granite Reservoir seem purposely neglected. If there are reasons to believe that the original wildlife along the shores of the other Lower Snake River reservoirs was more extensive than along the Whitman County shores of the Snake River, then the Draft EIS should state them. Otherwise, wildlife compensation measures ought to be increased for the north shores of Lower Granite Reservoir to bring that area's wildlife compensation measures in line with those of other areas along the Lower Snake River.

Response:

The North Shore of Lower Granite Reservoir located in Whitman County has been so changed by inundation and relocation of the roads and railroads that it would be difficult to economically justify intensive developments of wildlife habitat in this area. Independent consultants have evaluated shoreline potential of the Lower Snake River and determined the most practical sites for wildlife development. The remaining North Shore of Lower Granite Reservoir has been determined to be very unsuitable and would probably not provide intensive compensation in the near future. Whitman County residents could use the other wildlife habitat areas in Whitman County or other counties in the region. The Whitman County area would be considered for off-project lands.



Comment:

The Environmental Task Force would also like to advise the Corps of Engineers of the existence of the Washington State Register of Historic Places and of the Washington State Historic Preservation Inventory. Both are maintained by the Office of Archaeology and Historic Preservation of the Washington State Parks and Recreation Commission. Sites along the lower Snake River are included on each and ought to be considered in Corps of Engineer planning processes. In Whitman County such places as the H. H. Spalding grave site at Almota and the Granite Point are on these listings.

Response:

The Corps is aware of responsibilities of the Office of Archaeology and Historic Preservation. Information on historic and archaeological sites would be further defined as hatchery sites or guzzler development areas. Archaeological and historical reconnaissance and salvage has already occurred along the lower Snake River as part of the lock and dam project construction. Authorities on the subject from Washington State University and the University of Idaho continue to assist the Corps on such matters.

31. WHITMAN COUNTY SPORTSMEN'S ASSOCIATION, INC.

Comment:

We feel quite strongly that there has been a very detrimental loss of wildlife habitat along the Snake River. The Compensation Plan does allow for future compensation in some areas. However, the area most recently affected by the overall series of Lower Snake River projects, Lower Granite Dam and the area behind it, has very little compensation for wildlife. This area should receive greater emphasis in the plan due to losses as a result of roads and railroad relocation, areas inundated by the reservoir, the access to the area, the heavy use of this area by recreationists. Specifically, we are referring to the area located above Lower Granite Dam in Whitman County. We do not feel it is equitable to replace losses suffered in our area with habitat in other areas. The area above Lower Granite has a twenty-five mile road along the reservoir and has the best overall access to the reservoir area as compared to other sectors along the Lower Snake River. This is the main area utilized by residents of Whitman County and many visitors to the area.

Response:

Please refer to the response to a similar comment from the ASWSU Environmental Task Force, (see page A-44).



Comment:

We strongly agree with and endorse the willing-seller concept for land acquisition in fee and by easement. However, the ten year limit for acquisition of these areas should be eliminated. These projects on the Lower Snake River will disrupt wildlife habitat and populations as well as the recreationists use of these areas for periods far longer than ten years. The period for land acquisition, both in fee and by easement, should be extended to the length of the project's life. Hopefully, a longer period will allow for a change of attitude by local landowners. The ten year period is not sufficient to allow for proper relationships and subsequent negotiations to develop.

Response:

The ten-year limitation for purchases is expected to be adequate to stimulate acquisition and development of this land. It will help to insure that wildlife compensation occurs in a timely matter and is not unduly delayed. On-project wildlife habitat development will be fairly completed by the end of the ten-year period and able to provide wildlife habitat value.

Comment:

In reviewing the projected funds for a twenty year pheasant stocking program with personnel from the Washington State Game Department, the following points were made:

- a. the costs of such programs have increased dramatically recently
- b. the compensation plan does not include adjustments for inflationary increases in the various programs in the future.

Response:

The Washington State Department of Game is the agency responsible for the actual acquisition of pheasants for stocking lands. The Corps would supply a specified amount of money which is adequate to satisfy the compensation program. The cost estimated for this purpose in the proposal is the present purchase price for mature birds, projected over a 20-year period, as calculated on a present worth basis. The development of wildlife habitat over the twenty-year program would establish an increasing level of naturally breeding pheasant population, and this should meet hunter recreation requirements.



Comment:

The hatchery programs proposed may have many of the same difficulties which have been evident at the Dworshak fish hatchery. The water quality of the rivers at the proposed sites will likely necessitate closed water systems. We have reviewed the costs on a per fish basis for maintenance and operation only. These costs are staggering, even without adding on future cost increases. Because of the costs involved, the problems associated with, and the lack of direct benefits of these hatching programs, we would suggest a review of these plans. The fishing benefits are more for residents of Oregon and Idaho as well as commercial fishermen.

Response:

Hatcheries may or may not have closed water systems, depending on later site selection and coordination with fishery agencies.

The National Marine Fisheries Service has indicated that its latest value of anadromous fish is listed at \$28.00 per recreation day. Although the Corps has not approved this higher value to date, this higher value would greatly increase the benefit to cost ratio of the hatchery program. Washington anglers will also benefit from the compensation program.

Comment:

The Palouse River should be strongly considered for rainbow trout stocking, especially that area immediately west of the confluence of the two forks of the Palouse and the North Fork of the Palouse to the Idaho border. These areas have the best potential to support fish. These same areas contained good populations of game fish at one time. In addition, the Department of Ecology will monitor runoff from agricultural lands, primary source of pollution in the Palouse River, and work towards zero-discharge by 1985. This program should greatly enhance the Palouse River's potential for fish habitat.

Response:

The Palouse River would be considered as a resident trout fishery stream in the compensation program.

Comment:

There is growing emphasis for creating recreational opportunities for the sighting of wildlife, such as wildlife photography, bird watching, sightseeing, and environmental study. The availability of habitat for wildlife is directly related to wildlife populations. The amount of habitat, the vegetation, and the



wildlife will increase the enjoyment of all people who utilize the project lands for recreation and also increase their appreciation for the projects and help to alleviate the public's fear of adverse effects of the projects on wildlife.

Response:

The Corps recognizes the non-harvest value of fish and wildlife. We have discussed the value of wildlife habitat for non-game species as well as non-harvest use of game species.

Comment:

The local landowners should be considered in regard to future programs on their lands or adjacent lands. The following programs must be considered.

- a. weed control on habitat and easement lands
- b. fire protection on same lands
- c. control of access to hunting areas
- d. consideration for crop damage payments.

Funds for these programs should be considered for inclusion in the compensation plan.

The landowner should be allowed to control the number of recreationists on his property if an easement is given. It may be possible to set up registration points and only allow a certain number to enter. There will have to be some type of program to control the amount of use of the easement areas, otherwise the hunting pressure will be too great. We feel that if the landowners have some control of the amount of use on their lands, they will be much more receptive to selling easements and habitat areas.

Response:

The Corps has considered and is continuing to consider the local landowner with regard to these four points.

The Corps would work with the Washington State Department of Game regarding the hunter use patterns of the compensation program to avoid problems of overuse.

Comment:

Strong consideration should be given to the designation of several areas as wildlife and waterfowl sanctuary areas. Consideration should also be given to landowners to establish wildlife sanctuaries on their lands if they are not interested in the easement program. This should only be considered on a few selected areas.



Response:

The Corps would require that selection of hunter easements and wildlife habitat "core" areas be in proximity to each other in order to carry out the intent of the plan. Undoubtedly this would also be the goal of the wildlife agencies. Some sanctuary (no-hunting) areas could be included.

Comment:

We would also recommend that Illia be set aside as a wildlife habitat area. The proposed Corps project for housing on the Illia bar seems to be in conflict with the Corps intentions to provide areas for hunting and wildlife habitat. This area is one of few areas which is on project lands with good habitat potential and access available. The Corps should work with the Whitman County Parks and Recreation Board to establish habitat on the proposed park land at Wawawai Bay. This could serve as a game sanctuary because the area could be so designated and it would complement the uses of the park and increase the experience levels of the recreationists.

Response:

The Wawawai Bay area will be considered for fenced-off development of natural habitat. The Illia site has been considered as a possible intensive management area for wildlife habitat; however, due to the large area of very sandy and unstable surface conditions, the potential for intensive habitat planting and wildlife food patch development is limited. The Illia site is being considered for moderate wildlife management, except for that portion at the upstream end where recreation development has been done and where the Lower Granite operators' housing is to be built.

32. CHENEY ENVIRONMENTAL CENTER

Comment:

Our greatest objection is that "compensation" has to be made. One really begins to wonder whether these four "multi-purpose water resources development projects" are worth it. By multi-purpose we assume that they are meant to provide electricity, recreation, and irrigation water. Yet one really questions whether the energy produced before they silt up will compensate for the energy required to mine the resources for the dams and hatcheries, to build the dams and hatcheries to power the hatcheries once built, and to power the irrigation pumps to provide water to maintain habitat that was able to maintain itself prior to construction of



the dams. With respect to recreation, prior to the construction of dams on the Columbia, it was an excellent anadromous fish run. Now, because of the dams we must build fish hatcheries to supply fish which are considered to be of an inferior quality by those who have been fishing anadromous fish prior to man's interference. Because of the dams it is also necessary to try to re-establish habitat which was inundated by the rising waters in order to provide game for hunters which was also present previously. Unfortunately, observations such as these are too late to accomplish anything for the Lower Snake River, hopefully considerations such as these will be made before making the same mistakes on the Middle Snake River.

Response:

It is expected that siltation would not severely constrain power production at the Snake River projects for an estimated 1500 to 2000 years. This time would provide for adequate power generation to greatly exceed the energy expenditure for the construction and continued operation. The loss of the free-flowing river was inevitable with the creation of the dams. Fish and wildlife compensation is authorized under the Fish and Wildlife Coordination Act. It is believed that fish and wildlife populations can be increased in the Lower Snake River area to offset some of the losses caused by the dams.

Comment:

We are pleased to see that the effluent from the hatcheries will be passed through settling ponds prior to being dumped into the river and that the sediment will be dried and used for fertilizer. As you point out, while the ultimate discharge will be small, combined with other contaminants added to the river, this small amount could make a significant difference. Bearing this in mind, we hope that a constant effort will be made to try to reduce the contaminants introduced into the waters.

Response:

Hopefully, the rivers in the Northwest can be managed to meet the 1985 clean water discharge goals of the Environmental Protection Agency. Fish hatcheries are required to maintain certain limits of suspended solids, and every effort will be made to insure that adequate protection for water quality is established at each hatchery location.

Comment:

With regard to providing game birds, we would find it preferable to provide suitable habitat in which they could reproduce themselves to merely stocking the areas with birds from game farms.



Response:

The goal is to provide habitat in order that increased bird populations can be self-sustaining. Bird stocking is an interim part of the plan.

Comment:

On page IV-21, you mention the possibility that habitat development may improve the chances of the peregrine falcon nesting in the area since its natural food, ducks, will be increased by this project. However, unless a great effort is made to educate the public there will not be much hope of the peregrine falcon making a comeback. To begin with many people feel that man is the only one who has a right to kill wildlife, and all predators are something to be eliminated. Secondly, falconers must be contended with. If a peregrine should by chance nest in the area, it would be truly surprising if the nest were not raided by someone who either wishes to swell his ego or his pocketbook. Hopefully you can succeed in changing the attitudes of people by an intensive education effort.

Response:

Peregrine falcons are Federally protected birds and anyone molesting or disturbing nest sites, or adults, or immature birds are subject to penalties. Hopefully, with a change in public awareness, people will become more cognizant of the value of wildlife and will not disturb rare species.

33. MR. BENTON L. DICKINSON

Comment:

In your impact statement, you say that the major impact will be to increase the population of fish and wildlife to offset the loss resulting from the dam construction. I will agree that the salmon runs have been ruined on the Snake River. However, there may have been no loss of other wildlife - the report on the loss of deer and birds is a complete falsehood. I live on the Snake and the wildlife is still here.

Response:

The National Marine Fisheries Service, the U.S. Fish and Wildlife Service, and the fish and game agencies of Washington, Oregon, and Idaho joined in the preparation of the proposed recommendation for fish and wildlife compensation. It is these



agencies' recommendations on which the Corps report is based. Two independent consultants, one for the wildlife habitat development and one for the hatchery development program, basically concurred with the recommendations of the fish and wildlife agencies in that the estimates of loss and compensation needs were indeed valid.

Comment:

Your dam construction has covered my 600 acres of irrigated ground and cost this one ranch the summer pasture for 600 cows. This has made me cut my herd in half - 300 calves x 500 pounds equals 150,000 pounds of beef a year lost to consumers. Now you are going to fence my four miles of Snake River water for bird and deer habitat. In Wildlife Habitat 21s you give me one 25 foot lane through your shoreline for stock water. Imagine, if you can, 300 cows and calves on a hot day all trying to use this one water hole. At present, there are twelve (12) water holes along this four miles to give proper distribution of cattle and grass.

Response:

The maps in Appendix G which illustrate the wildlife development and fencing of the existing project lands are conceptual in nature. The symbol used to designate a fenced corridor for livestock watering is intended to show fencing of the corridors which were reserved to the landowners at the time the Corps of Engineers acquired the land for the project. The adjacent landowners, such as in this case, would be able to continue to use those corridors to which they have a legal right. Lands between the corridors would be fenced to prevent cattle trespass and to improve wildlife values. It is expected that prior to undertaking the proposed major fencing program, contact would be made with affected ranchers and that adjustments in the livestock corridor fencing could be mutually agreed to in order to satisfy both the wildlife and cattle watering needs. In some cases the legally reserved livestock corridors are not in the best place for the cattle to use, and relocation adjustment of the deed reservation may be mutually beneficial. Unauthorized and indiscriminant grazing and other livestock use of the shoreline would be prevented by fencing.

Comment:

You told us that you would omit the part about controlling the grazing on land adjacent to your project land and I hope to see this done.

Response:

This section referred to has been removed from the statement, although the discussion as it was written in the draft indicated that the Corps does not plan to control grazing on land adjacent to the project.



Comment:

I do not like the tone of this report. The State Game Department has lost their right of condemnation and when they team up with the Corps of Engineers, which still can condemn, it looks like the private land owner is about to give more yet to the Game Department.

Response:

The District's report recommends that condemnation would not be used for the purchase of any wildlife easement or wildlife habitat land. Condemnation would be used, if necessary, in the acquisition of hatchery sites. However, wildlife habitat lands would be by willing-seller agreement only.

Comment:

I would like to see our government file an impact statement on the affect on private land owners and to compensate the private landowners for their losses which, unlike game losses, are real and proven losses.

Response:

The environmental impact statement discusses the possible effects on private landowners, such as the potential for increased vandalism or littering, from the increased number of people who may use the proposed fee or easement lands. Since private landowners would participate in the program on a willing-seller basis, the landowners will not be affected unless it is of their own choosing.

34. MRS. KENNARD L. LITERAL

Comment:

As a taxpayer in Columbia County and a lifelong resident here, I feel there is no need for mitigation procedures as proposed at this time.

Response:

Noted.